Fact File

RIVER KENNET

GUARDIANS OF THE WATER ENVIRONMENT

NRA

National Rivers Authority
Thames Region

Fact File-RIVER KENNET

FACTS IN BRIEF

- The River Kennet, which rises south of Swindon in Wiltshire, is the largest single tributary of the Thames, contributing almost half the summer flow downstream of their confluence in Reading, Berkshire.
- The Kennet drains a catchment area of 1156 square km
- The fall in the river between West Kennet and its confluence with the Thames is approximately 112 metres.
- From its source to its confluence the river is about 98km long.
- Between Hungerford and Reading, the Kennet shares its valley with the Kennet and Avon Canal, recently restored and re-opened for leisure boating use.
- The average annual rainfall in the Kennet catchment is 764mm.
- Three quarters of the catchment is on chalk which tends to soak up the rainfall.
- The summer flow in the river is provided mainly from the groundwater fed perennial chalk streams of the Marlborough and Berkshire Downs.
- In some years low winter rainfall causes a lowering of the groundwater levels and a consequent reduction in stream flows.
- Together with its major tributaries, the Lambourn and the Enborne, the Kennet is an important fishery.
- The river was a source of power for many years and there were numerous mills along its length providing everything from bone-meal to gunpowder.

THE NATIONAL RIVERS AUTHORITY

Established on 1 September 1989, the NRA is an independent public body charged with safeguarding and improving the natural water environment. It is responsible for flood defence, regulating the quality of rivers and groundwaters, balancing the needs of various water users, protecting and improving fish stocks and promoting water based recreation of all kinds. The NRA is committed to improving wildlife habitats and conserving the natural environment in all it undertakes.

TRIBUTARIES

The two major tributaries are the Lambourn and the Enborne which meet the Kennet at Newbury and Aldermaston respectively. Other tributaries include the River Og, meeting at Marlborough, the River Dun and the Shalbourne stream, meeting at Hungerford, and the Foudry Brook, meeting the main river in Reading. The Winterbourne Stream joins the Lambourn on the outskirts of Newbury while the Enborne is joined by the Ecchinswell Brook and the Kingslere Brook at Headley, and the Baughurst Brook at Brimpton.

As their names imply, some of these streams, and the Kennet itself, are historically subject to seasonal movements both of their sources and of their flows. During periods of dry winters and hot summers this tendency is exaggerated.

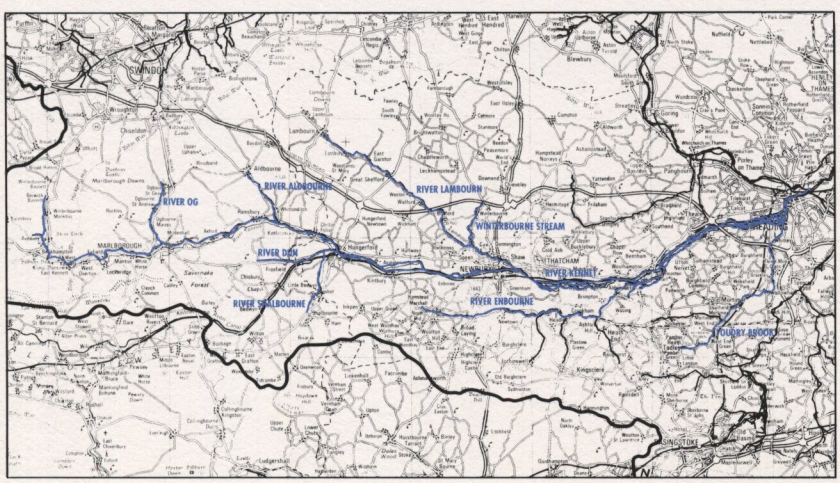
PLANNING LIAISON

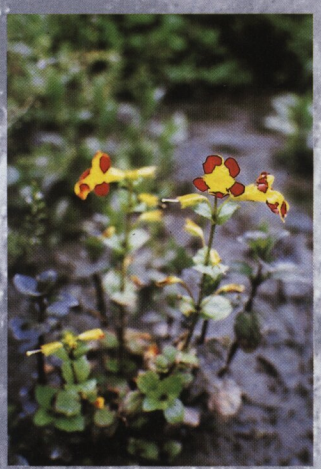
The NRA works with local planning authorities to protect the Kennet catchment from undesirable development.

WATER QUALITY

The Kennet and its main tributary, the Lambourn, are high quality chalk streams. The high quality of the water supports famous fisheries and a number of fish farms. Water is also abstracted for agricultural and industrial use and to supply drinking water for the Reading area. The river flows through a predominantly open, rural area, but also passes through, and receives the treated sewage effluent from, the towns of Marlborough, Hungerford, Newbury, Thatcham and Reading.

There are thirty seven regularly sampled monitoring points in the catchment, of which nine are on the Kennet itself.





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WATER QUALITY OBJECTIVES

From	To	Length Km	Objective
KENNET			
Kennet Source	West Kennet	14.3	E*
West Kennet	Newbury STW	51.1	1A - Good
Newbury STW	Aldershot Stream	5.9	1B - Good
Aldershot Stream	Foudry Brook	23.4	1A - Good
Foudry Brook	Thames	4.1	1B - Good
KENNET AND AVON CANAL			
Crofton	Kintbury	19.5	1A - Good
Widmead Lock	Woolhampton	6.8	1B - Good
Woolhampton	Ufton	4.5	1A - Good
DUN			
East Grafton	Kennet	16.2	1A - Good
LAMBOURN			
Lambourn	Kennet	25.7	1A - Good
ENBOURNE			
West Woodhay	Kennet	27	1A - Good
FOUDRY BROOK			
Devils Highway	Kennet	12.7	1B - Good

* E - Ephemeral: stream is regularly dry. When flowing it should comply with the objective of the downstream reach.

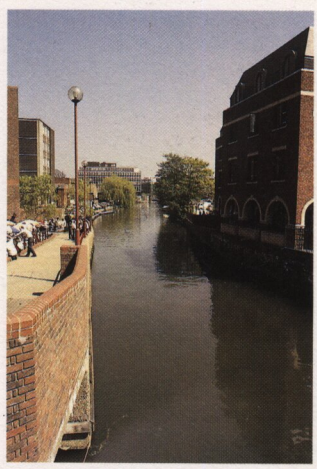
BIOLOGY

The River Kennet and its tributaries are regularly sampled by the biologists of the NRA. The sites on the River Kennet have some of the highest diversities of aquatic invertebrates for the whole of the River Thames catchment. The animals found are typical of chalk rivers, requiring high oxygen levels and high flows. Many species of mayflies, stoneflies and caddis flies live in the main river and tributaries. As many as 40 different types of invertebrate may be found by biologists when they carry out their routine checks.

DISCHARGES

The following are the major discharges into the Kennet and its tributaries. The figures shown are the maximum amount which is permitted to be discharged.

Discharge	Cubic Metres Per Day	Type of Effluent
KENNET		
Fyfield STW	3198	Sewage effluent
Marlborough STW	7500	Sewage effluent
Hungerford STW	3630	Sewage effluent
Kintbury STW	2454	Sewage effluent
Newbury STW	63000	Sewage effluent
Steetley Quarry	20000	Mineral
Padworth Fisheries	80000	Fish Farm
Tarmac Roadstone LTD	7500	Mineral
Colthrop Mills	73200	Cooling, process & Sewage effluent
DUN		
Berkshire Trout Farm	61371	Fish Farm
LAMBOURN		
East Shefford STW	4500	Sewage effluent
Lambourn Trout	7500	Fish Farm
ENBORNE		
Washwater STW	2850	Sewage effluent
Kingslere STW	2160	Sewage effluent
Greenham Common STW	3500	Sewage effluent
FOUDRY BROOK		
Silchester STW	24000	Sewage effluent
Mortimer STW	3450	Sewage effluent
Reading STW	177275	Sewage effluent



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WATER RESOURCES
Rivers are a major source of drinking water. They also provide essential water supply to agriculture and industry, and a natural and efficient means of disposing of discharged effluent. Ensuring that there is enough water to go round calls for a delicate balancing act on the part of NRA staff. The majority of water taken out of most rivers is used for public drinking water and similarly, the majority of effluent comes from sewage treatment works.

However, much water for public supply purposes comes from underground sources. This can also ultimately affect flows in rivers.

In order to ensure that there is sufficient information on river flows, the NRA carries out regular measurements and has a number of fixed gauging stations.

ABSTRACTIONS
Water can only be abstracted from rivers or groundwater under licence. NRA water resources staff are responsible for licensing abstractions throughout the Thames Region. There are two major abstractions on the Kennet, both from the canalised section. The Reed Paper and Board Mill at Colthrop near Thatcham is licensed to take up to 11.21 megalitres per day for industrial use and Thames Water Utilities is licensed to take up to 72.73 megalitres per day for public supply from Fobney in Reading.

Close to the river at Axford, Speen and Theale, there are large public water supply pumping stations taking water from chalk boreholes. The three licences permit a maximum daily quantity of 50 megalitres to be abstracted.

FLOOD DEFENCE
Reducing the risk of flooding from the Kennet and its tributaries forms part of the NRA Thames Region's work.

The NRA's river control room at Reading keeps a round the clock check on weather conditions and river levels. Staff interpret the information and give the local emergency services early warning of possible floods.

A flood defence team is based at Oxford to carry out regular river maintenance work. This includes dredging, weedcutting, and removal of blockages. This team is mobilised during flood emergencies to keep rivers clear of obstructions so that flood waters can be conveyed away as quickly as possible. They also provide assistance to environmental quality staff in cleaning up after pollution incidents.

The NRA is committed to protecting and improving the natural river environment and wherever possible our flood defence work includes features of environmental conservation and enhancement.

RECREATION
The lower Kennet between Reading and Newbury was made navigable at a relatively early date and was subsequently connected to the Bristol Avon and thence the Severn by the Kennet and Avon Canal. The Navigation has recently been restored to use throughout. Other recreational activities on and along the River Kennet include angling, bird watching, walking and picnics.

FISH IN THE KENNET
The upper River Kennet above Marlborough supports a wild brown trout population which is occasionally threatened by low flows during drought conditions. Between Marlborough and Newbury the river is an intensively managed and stocked trout fishery of very high quality and the fishing is strictly preserved. In addition to trout there is a thriving coarse fish population upstream of Newbury, with large roach, dace and grayling being numerous as far upstream as Hungerford. Efforts are being made to improve the spawning success of the wild brown trout population in these middle reaches, wherever suitable habitats can be found.

From Newbury down to the confluence with the Thames at Reading, coarse fish predominate and most riverine coarse fish species are to be found. Chub and barbel dominate but pike, roach and dace are also present and perch have been noted returning to the river in significant numbers after an absence of several years.

For much of its length, the Kennet runs in parallel with the Kennet and Avon Canal. This is also a very good fishery and is noted in particular for its roach and tench.

National Rivers Authority
Thames Region:

Kings Meadow House,
Kings Meadow Road,
Reading,
Berkshire,
RG1 8DQ.
Tel: 0734 535000.

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